Sexual Partner Type and Risk of Incident HIV-Infection among Adolescent Girls in HPTN 068

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BACKGROUND

HIV AMONG ADOLESCENT GIRLS AND YOUNG WOMEN (AGYW) IN SUB-SAHARAN AFRICA

- AGYW ages 15-24 account for 74% of all new infections and AIDS is the leading cause of death among adolescent females.
- In South Africa, HIV incidence is highest among young women aged 15-24

SEXUAL PARTNERS PLAY A CRITICAL ROLE IN HIV TRANSMISSION

- Connect AGYW to other higher risk sexual networks
- Clearly expose AGYW to HIV if infected
- Fail to recognize barriers that increase the risk of HIV acquisition for the young woman if the partner is infected

LIMITATIONS OF CURRENT APPROACHES

- Partner risk factors are assessed individually rather than together as they co-occur in the real world (single risk factor approach)
- When examined together, other partner risk factors are held constant (multiple risk factor approach), or partner risk factors are treated as exchangeable and additive (risk score approach)
- HIV identified six, distinct sexual partner types, which differed by age, school enrollment, concurrency, and condom use

METHODS

IDENTIFIED SEXUAL PARTNER TYPES: 2 APPROACHES

- Phenotypic partner labels (self-reported)
- Monogamous HIV status
- Perceived HIV status
- Age difference
- Education level
- Employment status
- Drug use

- Latent class analyses (identifies underlying partner subtypes)
- Aggregated partner labels
- Self-reported partner labels

- Social network analysis
- Link to known network
- Partner included in network (yes, no)
- Children with AGYW (yes, no, don’t know)
- Children with other women (yes, no, don’t know)
- Partner has an older peer partner (yes, no)
- Partner is a school peer partner (yes, no)
- Partner has not identified differences across partner types that can be used to connect AGYW to other higher risk sexual networks

STATISTICAL ANALYSIS

- Latent Class Analysis (LCA)
- Specified partner labels (self-reported)
- Partner enrolled in school (yes, no)
- Partner has HIV (yes, no, don’t know)
- Partner has not identified differences across partner types that can be used to connect AGYW to other higher risk sexual networks

RESULTS

AGYW at risk of incident HIV

- Mean age difference 2.5 years
- Mean age difference 3.0 years
- Mean age difference 2.0 years
- Mean age difference 2.5 years
- Mean age difference 3.0 years

- Inconsistent condom use

- Inconsistent condom use

- Consistent condom use

- Consistent condom use

CONCLUSIONS

- Partner type based on explicit, self-reported partner characteristics predicts incident HIV infection
- The risk behaviors, risks, trajectories, and partner risk factors associated with each sexual partner type must be evaluated and targeted for intervention
- Informations gained from this approach can be used to design more effective and tailored partner prevention programs
- Target specific combinations of factors that make partners high risk

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